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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,078	08/07/2003	Gregory S. Helwig	25334A	9843
22889	7590	12/05/2005	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			TORRES VELAZQUEZ, NORCA LIZ	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/636,078

Applicant(s)

HELWIG, GREGORY S.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-36 is/are pending in the application.
- 4a) Of the above claim(s) 26-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>90605</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's amendment and arguments filed September 01, 2005 have been fully considered but they are not persuasive.

a. Applicants have amended independent claim 1 to include all the limitations from canceled claim 2.

b. In her rejection, the Examiner provides the structure of NIELSEN et al. with irregular shaped fibers motivated by the desire of providing bulk and a structured appearance as taught by the secondary reference DE 19804418 A1. Applicants argue that the present invention relates to surfacing veils and cite several paragraphs of the present Specification in which the different uses of conformable surfacing veil or reinforcement mat is disclosed. Applicants argue that the DE '418 reference relates to a padded underlay and not a surfacing veil, and that one skilled in the art seeking to invention a new surfacing veil is critically concerned with surface appearance, and would not refer to the padded underlay art for any relevant teaching or suggestion.

The Examiner does not agree with Applicant's remarks. It is noted that both the NIELSEN et al. and the DE '418 teach nonwoven materials and that the NIELSEN et al. reference teaches a similar structure to the one claimed herein, except that it is silent to the inclusion of irregular shaped fibers. A complete translation of the DE '418 reference is provided herein and that on page 7 of the document is disclosed that the padding material is a nonwoven and that the bending properties including surface smoothness, good softness, good dynamic recovery rate, good rolling behavior (no fold formation as a

result), good rebound elasticity, low density, low weight and low price are combined in an ideal way. It is the Examiner's interpretation that the teachings of the DE '418 to use irregular shaped fibers (with spiral crimp) in order to increase the bulk while providing the nonwoven material with all the desirable bending properties described above would have been recognized in the art of NIELSEN et al. which is also directed to nonwoven materials and further would have been relevant to the construction of a new surfacing veil since the nonwoven material used as "padding" in the DE '418 reference would provide a good surface appearance since it has no tendency to form folds. (Refer to page 14 of the translated document). It is further noted that the Examiner is not trying to bodily incorporate the padded underlay structure of the DE '418 reference into the nonwoven material of NIELSEN et al. but to provide motivation for the use of irregular shaped fibers in a nonwoven material.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over NIELSEN et al. (EP 0465203 A1) in view of DE 19804418 A1 (Abstract) further evidenced by WEINLE et al. (US 4,840,832) and SANDSTROM et al. (US 6,379,497).

NIELSEN et al. relates to a thermally bonded fibrous wet laid web containing a bicomponent fiber including a polyester or polyamide fiber component and a component

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consisting of a linear low-density polyethylene. The web may further include a matrix fiber (*equated to the presently claimed structural fibers*), such as glass fibers, polyester fibers and polyamide fibers among others. (Abstract; Page 2, lines 8-11) The reference teaches the use of concentric sheath/core configuration in the bicomponent fibers. (Page 4, line 57 and Page 5, line 6) The reference teaches the use of a whitewater system of water, thickener and dispersant in the process for dispersing the bicomponent fibers and the matrix fibers in a furnish. (Page 5, lines 18-22) With regards to claim 16, the reference teaches bicomponent fibers with a sheath/core ratio of 40:60. (Page 8, line 47) Also glass fibers with a thickness (diameter) of 15 microns and a length of 0.5 inch. (Page 7, line 27) NIELSEN et al. also teaches embodiments that range from 75% bicomponent fiber and 25% PET fiber to 25% bicomponent fiber and 75% PET fiber of 1.5 dpf and cut length of 0.5 inches. (Refer to Page 10, lines 2-8)

NIELSEN et al. is silent to the use of irregular shaped fibers.

The '418 reference relates to a padded underlay for use with decorative and/or cladding material. The reference teaches textile fibers in a combination of 10-95% of polyester fibers with a spiral crimp and 5-50 wt% of core/mantle bicomponent fibers. The mantle (sheath) of the bicomponent fiber is a polyester. (Abstract) The padding material is a nonwoven and that the bending properties including surface smoothness, good softness, good dynamic recovery rate, good rolling behavior (no fold formation as a result), good rebound elasticity, low density, low weight and low price are combined in an ideal way. (Refer to page 7 of translation).

Since both references are directed to nonwoven materials, the purpose disclosed by the DE '418 reference would have been recognized in the pertinent art of NIELSEN et al.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the matrix fibers of NIELSEN et al. and provide them with an irregular shape with the motivation of providing bulk and a structured appearance as disclosed by the DE '418 reference.

With regards to claim 8, the use of heat expandable thermoplastic polymeric microspheres is well known in the art of nonwoven materials to provide bulk enhancement as evidenced by SANDSTROM et al. Therefore, the use of such material would have been obvious to one having ordinary skill in the art motivated by the desire of providing bulk or loft to the material.

With regards to claims 19 and 23, the NIELSEN and '418 disclose the claimed invention except that teach the use polyethylene or polyester instead of polypropylene in the sheath of the bicomponent fiber, WEINLE et al. (US 4,840,832) shows that polypropylene is an equivalent material known in the art. Therefore, because these materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute polyester or polyethylene for polypropylene in the sheath of the bicomponent fiber.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

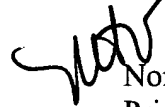
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

November 22, 2005